

## Tennessee's Well Known 'Dr. Andy' Speaker At UT Appreciation Banquet



Dr. Andrew D. Holt

Dr. Andrew D. Holt, President of The University of Tennessee, will be the principal speaker at a banquet highlighting the "UT Appreciation Days" program in Oak Ridge. The banquet will be held tomorrow, Thursday, November 20, starting at 7:30 p.m. at the Holiday Inn. It will be preceded by a reception at 6:30 p.m.

Master of ceremonies for the banquet will be H. G. P. Snyder, President of the Oak Ridge Chamber of Commerce and superintendent of Y-12's Industrial Relations Division. The Chamber is sponsoring the two-day program which is being held in conjunction with the 175th anniversary celebration of the University.

Tickets for the banquet, priced at \$5 each, are available from the Public Relations Office, Building 9704-2, extension 3-5345.

Others participating in the banquet program will be Mayor A. K. Bissell; R. F. Hibbs, President of Union Carbide Corporation's Nuclear Division; William G. Pellard, Executive Director of Oak Ridge Associated Universities; S. R. Sapir, Manager of Oak Ridge Operations, U.S. Atomic Energy Commission; and A. M. Weinberg, Director of Oak Ridge National Laboratory.

### UT Growth Cited

"We are very fortunate to have Dr. Holt as our banquet speaker," Snyder said. "He is recognized as one of America's leading educators and has been accorded an unusually large number of national honors in the education profession."

Under Dr. Holt's leadership, The University of Tennessee has grown substantially in size, programs, and prestige, becoming the 22nd largest institution of higher education in the nation.

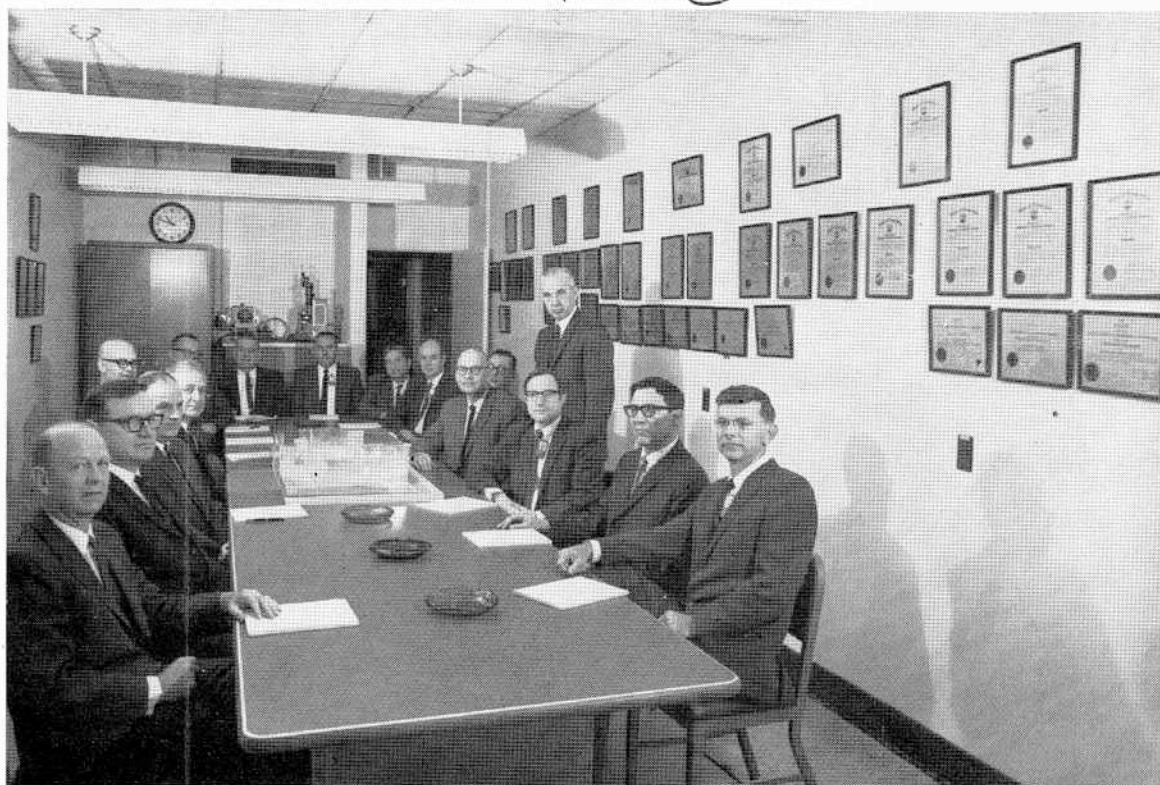
Dr. Holt was born in the West Tennessee town of Milan. He earned his bachelor of arts degree from Emory University, and his master's and doctor's degrees from Columbia University. He has been successively, an elementary teacher, a high school teacher and coach, a demonstration school principal, a college professor, and executive secretary of the Tennessee Education Association. He has been President of The University of Tennessee for the last 10 years.

### 'Education' Background

He is currently serving as a member of the national Steering Committee of the Education Commission of the States, which was recently established by governors and legislators throughout the nation. He is past president of the National Education Association and the Southern Association of Colleges and Schools.

He is past president of the Southern Association of Land-Grant Colleges and Universities and the Southeastern Conference (for intercollegiate athletics), the former Chairman of the Board of Visitors of the U.S. Air University, a former member of the National Advisory Dental Research Council and the Council of Advisors of the U.S. Commissioner of Education. He led the American delegation at the World Organization of the Teaching Profession held in Switzerland in 1949.

Continued on Page 4



Y-12'S TECHNICAL AND ENGINEERING supervisory personnel have added their strong endorsement and encouragement to the efforts to promote the licensing of professional engineers and the certification of engineering technicians. S. J. Cromer, director of engineering for the Nuclear Division, is seen standing at a recent conference among Y-12's engineering staff.

## Professional Engineer Is Proud Title Earned By Skills, Knowledge In Field

"As a Professional Engineer, I dedicate my professional knowledge and skill to the advancement and betterment of human welfare. I pledge: to give the utmost of performance; to participate in none but honest enterprise; to live and work according to the laws of man and the highest standard of professional conduct; to place service before profit, the honor and standing of the professional before personal advantage, and the public welfare above all other considerations. In humility and with need for Divine Guidance, I make this pledge."

Thus reads the creed of the National Society of Professional Engineers, a national society dedicated to the advancement and upholding of the engineering profession.

A number of the Society's members in the Y-12 Plant are now involved in an effort to encourage all practicing engineers in the Plant to become licensed and registered. The display of the creed is part of the promotional effort and has the full endorsement of engineering and technical management.

The movement is beginning to bear fruit. In the Engineering Division, where much of the encouragement is being generated, over one-third of the engineering staff is licensed. Overall, about 20 percent of the engineers throughout the Plant have obtained licenses.

While a license is not mandatory at Y-12, it is recognized by management as a significant achievement.

"Licensing is important," according to F. S. Patton, Engineering Division, "because it enlarges the growth and status of individual engineers while it improves the company's capabilities and image."

Continued on Page 4

## Carrier Seminar Tomorrow At K-25

A one-day "Carrier Seminar" will be held tomorrow, Thursday, November 20, at Oak Ridge Gaseous Diffusion Plant. Representatives of truck lines, railroads, air lines, REA express and United Parcel Service will meet with the Atomic Energy Commission and contractor personnel. Approximately 125 persons are expected to attend the sessions.

The primary objectives of the seminar is to exchange ideas and information relating to the transportation operations of the AEC and its contractors. In addition to orientation and panel discussion session, the following topics will be on the agenda: Traffic Management and Staffing, Description and Physical Facilities, Regulations, Transportation Activity, Transportation Policies and Procedures, Claim Procedures and Specific Transportation Requirements.

G. B. Brooks, Traffic, Receiving and Shipping at K-25, will be chairman for the seminar.

## R. F. Hibbs Speaks To Health Physicists

The East Tennessee Chapter of the Health Physics Society will meet Monday, November 24. The meeting is set at the Holiday Inn, Oak Ridge, at 5:30, beginning with a social hour, dinner at 6:30 and the program at 7:30 p.m.

Roger F. Hibbs, president of the Nuclear Division of Union Carbide Corporation, will speak on "Carbide Activities in the Oak Ridge Area." Dr. Gould A. Andrews, Oak Ridge Associated Universities, will act as moderator.

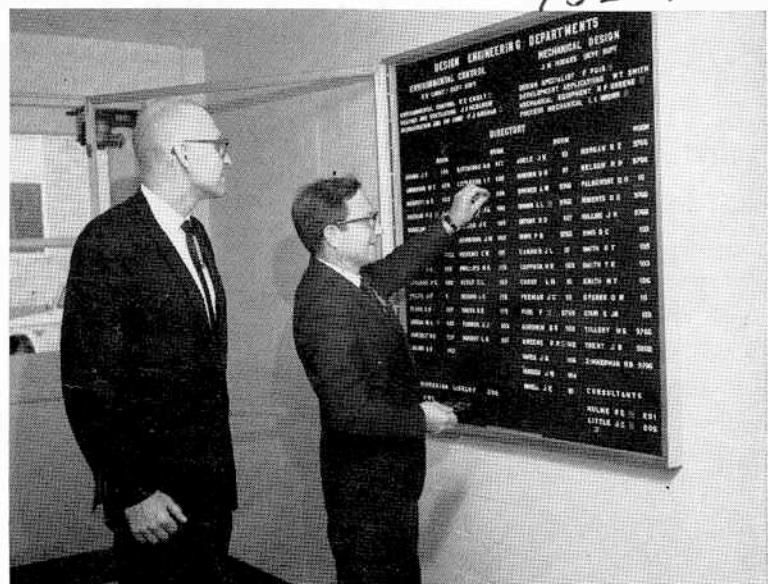
All HPS members, guests and interested persons are urged to attend Monday's meeting.

### DOUBLE YOUR MONEY

The most fool-proof way in the world to double your money is to fold it and put it back in your pocket.

### DEFINITION

A modern household consists of a husband who makes the money and a wife and kids who make it absolutely necessary.



F. S. PATTON, left, and G. R. JASNY obviously enjoy their task of adding the 'P. E.' award emblems by the names of licensed engineers on a building directory in Y-12.

## 'Double' Holiday Is Coming For Y-12ers

Next Thursday and Friday, November 27 and 28 will be a 'double holiday' for Y-12ers.

The plant now gets two days for the Thanksgiving holiday.

### SAFETY SCOREBOARD

The Y-12 Plant Has Operated  
61 Days Or  
2,239,000 Man-Hours  
(Unofficial Estimate)  
Through November 16  
Without A Disabling Injury  
SAFETY AT HOME,  
AT WORK, AT PLAY

## Special Seminars Set In Physics Division

Two special Physics seminars are planned for this week. Part I is set for tomorrow, Thursday, November 20... and Part II will be held Friday, November 21. Both are set for 3:15 p.m. in the East Auditorium of ORNL's 4500N building.

V. M. Strutinski, Niels Bohr Institutet, Copenhagen, Denmark and I. V. Kurchatov of Atomic Energy, Moscow, USSR will lead the discussions, "The Problem of Shell Stability of Heavy Nuclei."

### CHECK CASHING TIME

Check-cashing facilities in Building 9711-5, near Timekeeping, is observing the following hours: 10:30 a.m. to 1:30 p.m. daily.



# The Bulletin

Published Weekly For The  
Y-12 Employees Of  
UNION CARBIDE  
CORPORATION



NUCLEAR DIVISION

JAMES A. YOUNG Editor

Member Appalachian  
Industrial  
Editor's  
Association

American Association Industrial Editors

OFFICE  
Post Office Box Y  
Oak Ridge, Tenn. 37830  
Telephone 3-7100



This is the dawning of the age of Sagittarius . . . as more Y-12-ers mark important days with Union Carbide Corporation. Congratulations.

## 25 YEARS

Eugene F. Dykes, Buildings, Grounds and Maintenance Shops, November 24.

Wilma C. Rodgers, ORNL Chemical Services, November 24.

Glenn A. Atchley, Guard Department, November 25.

## 15 YEARS

Earl A. Crucey, Material Specimen Shop, November 20.

## 10 YEARS

Darit K. Branson, Beta Four Heavy Machine Shop, November 23.

Joseph O. Brummette Sr., Beta Four Heavy Machine Shop, November 23.

Jack D. West, Tool Engineering, November 23.

## Hamilton Son Is Named Top Recruit



PFC Horace E. Hamilton Jr.

Private First Class Horace E. Hamilton Jr. has just completed his basic training at Parris Island, South Carolina. He was voted the outstanding man in his platoon and presented a pair of dress blues. Leatherneck magazine, the official Marine Corps magazine, sponsors the platoon contest.

Horace took other honors during basic: he was awarded second place for his score on the rifle range and presented a trophy for his efforts. He is now stationed at Camp Le Jeune, North Carolina.

The Hamiltons live at Route 7, Concord. At home still are brothers Larry, Jimmy and Randy and sister Cynthia Ellen.

The proud father is in 9215 M-Wing Dispatching.



Mrs. Larry Stephen Stooksbury

## ASME Meeting At Deane Hill

All the major countries of the world except the United States and Canada have adopted the metric system. How would conversion in this country affect U.S. industry?

This will be the central question posed by the East Tennessee Section of the American Society of Mechanical Engineers at a dinner meeting tomorrow, Thursday, November 20 at Deane Hill Country Club, Knoxville.

According to ASME's E-T Section chairman, D. L. Gray, a panel of "distinguished industrial leaders" will participate in a special group discussion on metric conversion. Moderating the discussion will be A. G. McNish, National Bureau of Standards, who is also Technical Director for the Metric Study Group which was authorized by Congress last year to determine probable conversion costs and problems.

In charge of arrangements for the program are Gray; L. L. Leavell, section program chairman; and C. A. Burchsted, session chairman. All three are employed by Union Carbide Nuclear Division's Oak Ridge National Laboratory.

The U.S. is an "English-system island in a worldwide metric sea," Burchsted said. Even the British, who originated most of the measurement and metrology systems used in this country, have adopted the metric system.

"Conversion presents many problems," he said, "but the long-range benefits—such as increased ease of computations and international communication—must be considered."

There will be a reception tomorrow at 6:30 p.m., a "Dutch-treat" dinner, at 7, several short speeches, and the panel discussion. The public is invited.

There are 23 counties represented in the East Tennessee section of the ASME. They are Anderson, Blount, Campbell, Claiborne, Clay, Cocke, Cumberland, Fentress, Grainger, Hamblen, Jackson, Jefferson, Knox, Loudon, Monroe, Morgan, Overton, Pickett, Roane, Sevier, Scott, Union and White.

## DEFINITION

'A cauliflower is nothing but a cabbage with a college education.' Mark Twain.



## STOOKSBURY—DEW

Miss Catherine Louella Dew and Larry Stephen Stooksbury were married at 6 p.m., Saturday, September 6, at the Powell Methodist Church. The Reverend Frank Snively officiated at the ceremony.

The bride is the daughter of Mr. and Mrs. Richard E. Dew, West Beaver Creek Drive, Powell. The groom is the son of Mr. and Mrs. Thomas E. Stooksbury, Brown Lane, Powell. The father of the bride is in the Training and Technology Program and the groom's father is in Beta Two Machine Shop.

Given in marriage by her father, the bride wore an empire gown of silk faced peau-de-soie and Alencon lace. Her elbow length veil of English silk illusion was held by a crescent lace cap trimmed in tulle orange blossoms. She carried a colonial bouquet of mixed flowers.

Mrs. Judy Franse, sister of the groom, was matron of honor. Mrs. Jewel Stooksbury, Atlanta, was a bridesmaid. They wore floor length gowns of pink shantung with matching headresses, and carried white wicker baskets of mixed flowers.

Rex Stooksbury, brother of the groom, was best man. Ushers were Charles Brennan, Steve Franse, Richard Dew Jr., brother of the bride, Joe Stooksbury, Decatur, Georgia; and George Stooksbury, Altus, Oklahoma, brothers of the groom.

Barry Stooksbury, Atlanta, was ringbearer and Melinda Franse was flower girl.

A reception honored the couple at the church following the rites.

The bride is in Y-12's Quality Liaison Department, and the groom is a senior at The University of Tennessee.

## 'Year of Purpose' Film Now Available

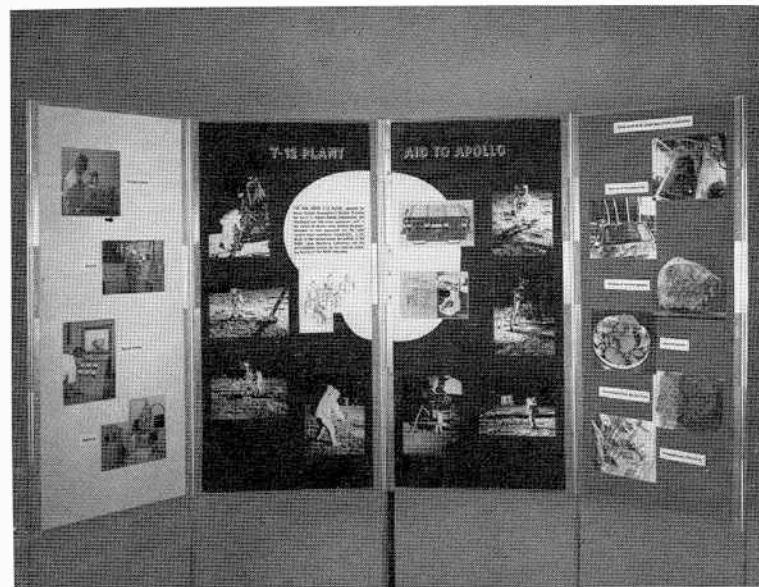
"The Atom: Year of Purpose," a popular level motion picture dealing with peaceful uses of nuclear energy, is being made available for free loan to the public through the Atomic Energy Commission's film library here.

The 29-minute color film was produced by the AEC's Division of Public Information in Washington and the Commission's Argonne National Laboratory near Chicago.

It describes 17 major developments in nuclear energy as well as six spin-off applications. Among the major stories in the film are:

- The first refueling of the Nuclear Ship Savannah in six years.
- Growth of nuclear power stations.
- The Agro-Industrial Complex (nuclear reactors to desalt seawater for coastal-desert agriculture and to produce electricity for factories).
- Toll enrichment of uranium owned by private industry.
- Ground testing of a nuclear-powered space rocket engine.
- The transplanting of sea otters from the Aleutian test area.

The movie may be borrowed free of charge, except for return postage, from the AEC's Motion Picture Film Library here.



THESE PORTABLE EXHIBITS depicting Y-12's potentials are available for loan where papers or talks are being given at technical society meetings. They may be obtained through Technical Information Services, extension 3-5101.

## Interesting Portable Displays Are Available As Speakers' Visual Aids

Three portable exhibits which briefly depict the Y-12 Plant in color photographs with captions are now available for loan to Y-12ers presenting papers or talks at national or local technical society meetings.

## Two Y-12 Films Available For Loan

Two motion picture films produced at the Oak Ridge Y-12 Plant were shown recently at the Institute of Electronic and Electronic Engineers' Machine Tool Conference in Detroit.

The films, "Machining and Measuring in Microinches" and "An Automatic Tool-Setting System for Precision Machining," were shown to the hundreds of attendees as examples of advanced electronic systems applied to machine tools.

Since the films were made in 1966, they have been exhibited at

Two of the exhibits are of the general type, showing unclassified scenes throughout the Y-12 area. The third exhibit briefly describes Y-12's contributions to the Apollo program and includes photographs of the astronauts on the moon and some of the samples which they returned.

The exhibits may be scheduled for loan through Y-12's Technical Information Services, Building 9768, extension 3-5101.

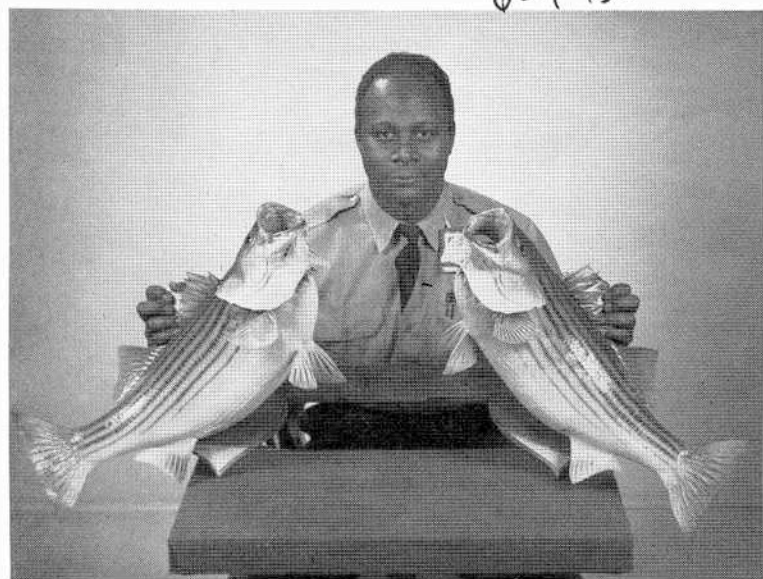
several national and international technical meetings and have been made available for short-term loans to many machine tool manufacturing firms.

Both films are available for loan from Y-12 Technical Information Services.

## NO REST AT ALL

Doing nothing is the most tiresome thing in the world, because one can't quit and rest awhile!





**JESSE FARMER, GUARD DEPARTMENT**, recently caught these two rock bass in the waters of Cherokee Lake on a fishing expedition with his dad. Both weighed in excess of 10 pounds and make excellent trophies for the recreation room. Farmer says the hybrid fish really create a fight when hooked.

## Alley Cats Inch On Mixed Alleys

The Alley Cats moved to within spitting distance of the top of the Mixed League last week, bowling over the Roses 'N Thorns for three. Also posting three were the Spare Parts over the Goofers. The Hits & Misses and Rollers shared two, while the Mustangs managed three at the expense of the Twisters.

Elbert Scott, Hits & Misses, hit a 210 scratch, 241 handicap game. The Rollers' C. R. Lively rolled a 541 scratch series and Charlie Gillihan put a 626 handicap series up. On the girls' side of the house it was Mildred Morris, Goofers, with a 177 scratch single. . . Ann Lively, Rollers, with a 225 handicap single. Barbara Hackett, Roses 'N Thorns, rolled series of 456 scratch, 567 handicap.

The Rollers rolled highs all the way . . . singles of 695 scratch, 856 handicap; series of 1839 scratch, 2312 handicap.

League standings follow:

Team	W	L
Goofers	27 1/2	16 1/2
Alley Cats	26	18
Spare Parts	23	21
Roses 'N Thorns	22	21
Roses 'N Thorns	22	22
Mustangs	20 1/2	23 1/2
Hits & Misses	20	24
Rollers	19	25
Twisters	18	26

## Recreation



**Saturday, November 22**

**TURKEY SHOOT:** Sponsored by B Shift, 9 a.m., Oak Ridge Sportsmen's Association Range.

**Monday, November 24**

**BOWLING:** C League, 5:45 p.m., Ark Lanes.

**TABLE TENNIS:** 7 p.m., Wildcat's Den.

**Tuesday, November 25**

**PHYSICAL FITNESS (For Men):** 7-9 p.m., Oak Ridge High School Gym.

**BOWLING:** Carbide Starlite League, 8:30 p.m., Starlite Lanes, Knoxville.

**Wednesday, November 26**

**22 CALIBRE RIFLE LEAGUE:** 7 p.m., Oak Ridge Sportsmen's Association Indoor Range.

**Thursday, November 27**

**THANKSGIVING:** Holiday for Y-12ers.

**Friday, November 28**

**BONUS:** Holiday for Y-12ers.

## B Shifters Plan Turkey Shoot Here

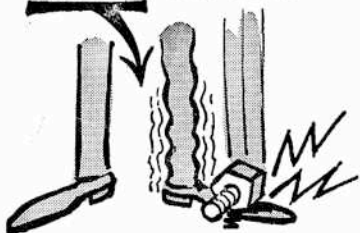
B Shift Sharpshooters are holding a turkey shoot at the Oak Ridge Sportsmen's Association Saturday, November 22.

The first of the 20 relays will be fired at 9 a.m.

## SOME DIFFERENCE

The difference between a man buying a hat and a woman buying a hat is about three hours.

**YOU WOULDN'T WANT TO BE IN HIS SHOES -**



**WEAR SAFETY SHOES**



**Ride wanted from Highland View area, Oak Ridge, to North Portal, straight day.** Mary Scott, plant phone 3-7554, home phone Oak Ridge 482-1326.

**Ride wanted from Nebraska, Newridge area, Oak Ridge, to North or Central Portal, straight day.** W. K. Dagenhart, plant phone 3-5451, home phone Oak Ridge 483-8801.

**Ride wanted, or will join car pool, from 102 Vernon Road, Oak Ridge, to North or Central Portal, straight day.** Plant phone 3-7060, home phone Oak Ridge 482-1567.

**Ride wanted from Shadyland Drive, West Knoxville, to North Portal, straight day.** Ann Ware, plant phone 3-5233, home phone Knoxville 588-5364.

**Rides wanted from Karns to North Portal, straight day.** Frances Burkhalter, plant phone 3-7727, home phone Knoxville 588-9901.

## Badgers Bounce Near C Tops

The Badgers crept back toward the top notch of the C Bowling League last week with a smashing win over the Royal Flush, the only four-pointer of the week. The top-seeded Rounders grabbed three from the Go Go Gophers. Also posting three were the HiLifers by the Parbustlers, the Rollmasters 'round the Anodes, the Big Five by the Fireballs, and the Instrument Engineers around the Sunflowers.

Individual honors went in all directions . . . on singles it was Bill Ladd, Rollmasters, and Dan Kessell, Rounders, tied in scratch scoring, 224. Steve Babb, Instrument Engineers, rolled a 244 single in handicap tallying. Ray Galford, Sunflowers, put a 585 scratch series on the boards; and Don Norris, HiLifers, had a 641 handicap series.

The Rounders were best in singles . . . 965 scratch, but the Instrument Engineers edged them out in handicap scoring with 1052.

The Rounders came back to the boards with 2696 scratch, 2940 handicap series.

League standings follow:

Team	W	L
Rounders	29	11
Badgers	28	12
HiLifers	27	13
Rollmasters	22	18
Parbustlers	21	19
Sunflowers	20	20
Anodes	19	21
Big Five	18	22
Instrument Engineers	18	22
Fireballs	17	23
Go Go Gophers	15	25
Royal Flush	6	34

## 2 Teams Share Starlite Lead

The Hi-Jackers and Woodpeckers still share top billing in the Starlite Bowling League after they won big from opponents last week. The Hi-Jackers had three at the expense of the Jaguars and the Woodpeckers won three from the Has Beens.

Also taking three were the Splitters over the Wildcats. The Thunderbirds took two from the Dynapaths.

Frank Lively, Splitters, zeroed in with singles of 220 scratch, 246 handicap. Howard Gerth, Woodpeckers, sailed in with series of 571 scratch, 619 handicap.

The Woodpeckers pecked through in singles . . . 864 scratch, 1034 handicap. The Hi-Jackers had a series of 2496 scratch; but the Woodpeckers returned to the boards with handicap series of 2928.

League standings follow:

Team	W	L
Hi-Jackers	11	1
Jaguars	3	9
Woodpeckers	11	1
Splitters	7	5
Has Beens	6	6
Thunderbirds	4	8
Wildcats	3	9
Dynapaths	3	9

## Winter Sports Set Dead-Line Today!

The dead-line for entering Volleyball and Basketball teams has been set at 4:30 p.m. today, Wednesday, November 19.

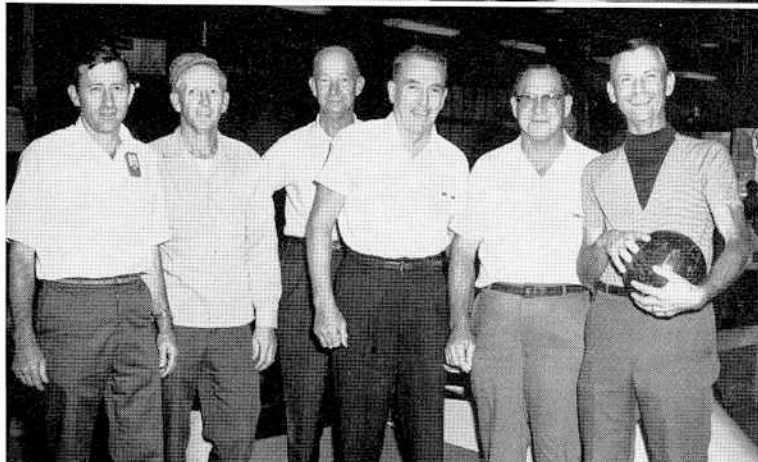
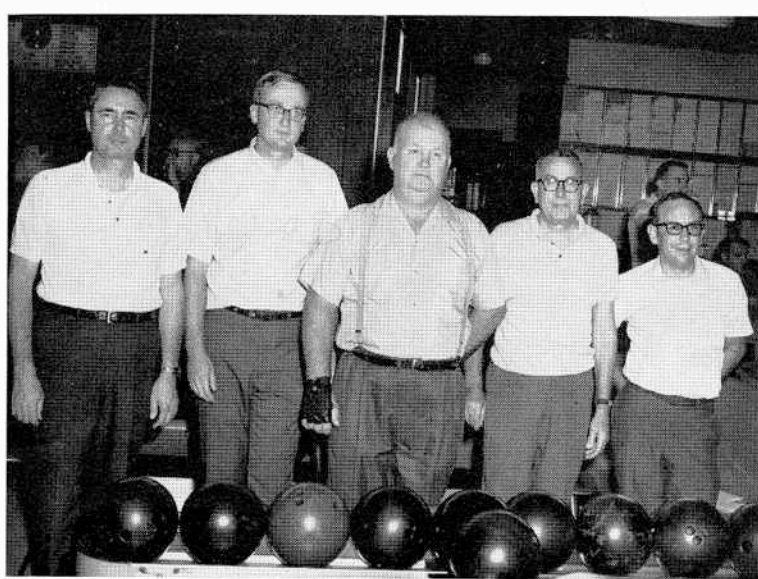
If individuals want on teams, they might call Recreation, extension 3-7109, and get on a team.

## TO BE SURE

Sometimes it's wise to stay awake when arguing with a stupid person . . . just to make sure he's doing the same thing.

## LOVE A PARADE

We know someone who comes from a town so small . . . that when they have a parade there's no one left to watch it!



**THE PLAYBOYS AND THE PINBUSTERS** . . . provide alliteration for keggers in the Classic Alleys. In the top photo are the Boys . . . from left, Neal Dow, George Zurawick, Frank Adams, Dick and Wes Brothers. Captain Dave Smith wasn't available for a photo. In the lower shot are the Pinbusters . . . C. R. Martin, Joe Murph, L. N. Wakefield, Howard Schultz, Carl Redding, and Captain F. K. Clabough.

## Classic Bowlers Pose Big Question Who'll Stop The Big Markers Now?

The Markers stretched their already big lead in the Classic Bowling League last week by smearing the Cubs for the big count. Also taking four were the Has Beens by the Splinters, the Swingsters over the Smelters and the Eagles over the Eightballs.

Posting three were the Rebels 'round the Bumpers and the Pinbusters past the Playboys. The All Stars and Rippers shared two . . . as did the Screwballs and Tigers.

Jim Halsey, Bumpers, belted

out a 231 single scratch game. Lee Horton, Cubs, clouted a 256 handicap single. Halsey's series of 626 scratch, 668 were high naturally.

The Has Beens and Rebels both rolled 930 scratch singles. The Has Beens had high handicap singles with 1048. The Swingsters had a series of 2717 scratch, 3011 handicap.

League standings follow:

Team	W	L
Markers	36 1/2	7 1/2
Rebels	27	17
Has Beens	26	18
All Stars	25 1/2	18 1/2
Rippers	25 1/2	20 1/2
Tigers	23	21
Cubs	22	22
Pinbusters	21 1/2	22 1/2
Bumpers	21	23
Screwballs	20 1/2	23 1/2
Eightballs	20	24
Playboys	20	24
Swingsters	19 1/2	24 1/2
Splinters	18	26
Smelters	14	30
Eagles	14	30

## Forfeits Big News In Table Tennis

A few licks got put in the Table Tennis League last week. In the X League it was Herb Mook three games over Bill Motley and Jerry Goldstein, two over Subbu Raman.

Loyd Wyatt downed Motley for three, and Jerry Keyes got three from Goldstein.

X League standings:

Player	W	L
Roy Huddleston, Y-12	3	0
Herb Mook, X-10	3	1
Loyd Wyatt, Y-12	6	3
Jerry Keyes, Y-12	6	3
Bill Foutz, X-10	4	2
Subbu Raman, X-10	3	6
Bill Motley, Y-12	0	6
Jerry Goldstein, X-10	0	9

In the Y League forfeit wins went to Art Weinberger over Bob Smith and Ken Toth. Ram Uppuluri won three from Toth . . . as did Gordon Brewer. Brewer also took three from Bob Smith.

Bill Bardill took a forfeit from Smith, but won two by play from M. Z. Zeigler.

Y League standings:

Player	W	L
Art Weinberger, X-10	9	0
Ram Uppuluri, X-10	3	0
Gordon Brewer, Y-12	8	1
Ed Gambill, Y-12	4	2
Bill Bardill, X-10	5	4
M. G. Zeigler, X-10	1	5
Bob Smith, Y-12	0	9
Ken Toth, X-10	0	9

## Junior Playhouse Sets Try-Outs This Saturday

Try-outs for Oak Ridge Junior Playhouse's mid-winter production of "You'll Never Believe It" will be held Saturday, November 22, at 10:30 a.m. in the Playhouse, Jackson Square.

Written and directed by an Oak Ridger, Norwood Gove, the star of the play will surely be "Ralph," a computer and time machine. Ralph turns the clock backward, first to cavemen and then to 1637 in the European Alps. The future is also revealed when Ralph tunes in on a classroom in progress on the moon in the year 2002.

At least eight people will be needed. Boys and girls of junior high and high school age can apply for speaking parts. No previous Playhouse experience is necessary. Two dancers with some stage experience will also be selected.



ORNL 97686

## New Acrylate Facility Set

Union Carbide Corporation has announced the completion of a multimillion-dollar acrylate plant at its chemical complex in Taft, Louisiana. According to R. D. Bower, president of the Chemicals and Plastics Operations Division, the facility, which is capable of producing over 200-million pounds of finished product per year, is the only unit of its kind in the world and incorporates advanced manufacturing technology. Start-up operations are in progress and full operation is anticipated this year.

The new facility will more than triple the corporation's present 70-million-pound-per-year acrylate capacity. This increase will enable Union Carbide to support expanding domestic and foreign markets for refined acrolein, glacial acrylic acid, and a broad range of acrylic esters. At the present time, the total annual production of acrylates in the United States is about 300 million pounds.

Greatest availability of acrylates will substantially benefit manufacturers of textiles, paper, leather, coatings, rubber, oil additives, polishes, and adhesives. The use of acrylates in clothing has been increasing, especially in producing interlinings for suits, shirt collars, and ties; interfacing for women's dresses; and for laminating and permanent sizing. There is also an increasing use of these products for backcoating of upholstery and automotive fabrics and as flocking adhesives. Other applications include their use in binders for paper and box-board coating; as additives for diesel engine and gear oils, gasoline, and automatic transmission fluids; and in industrial coatings for automobiles, appliances, metal and wood furniture, machinery and toys.

Bower commented that the plant's manufacturing process utilizes basic propylene oxidation technology licensed from B P Chemicals Limited as well as advanced process technology developed by Union Carbide. The corporation has exclusive rights to the B P Chemicals oxidation technology in the United States and Canada.

Bower further stated that the corporation's group of environmental control experts worked closely with designers and contractors to insure that the facility incorporated the most effective pollution control system possible.

## Dr. Andy Holt

Continued from Page 1

The banquet is one of several activities scheduled in connection with the "UT Appreciation Days" program. Today the two-day program is kicked off with a breakfast at the Alexander Motor Inn at which Chancellor Charles H. Weaver is the speaker. Eugene Joyce is the master of ceremonies.

Today, the UT Singers will make two appearances at the Oak Ridge High School. The program is for school students. On both today and tomorrow, elementary and high school students will have an opportunity to tour the Agricultural Research Laboratory which is operated by The University of Tennessee for the Atomic Energy Commission.

### MULTIPLE ADVANTAGES

An optimist will be as wrong as often as a pessimist, but he will have a lot more fun!

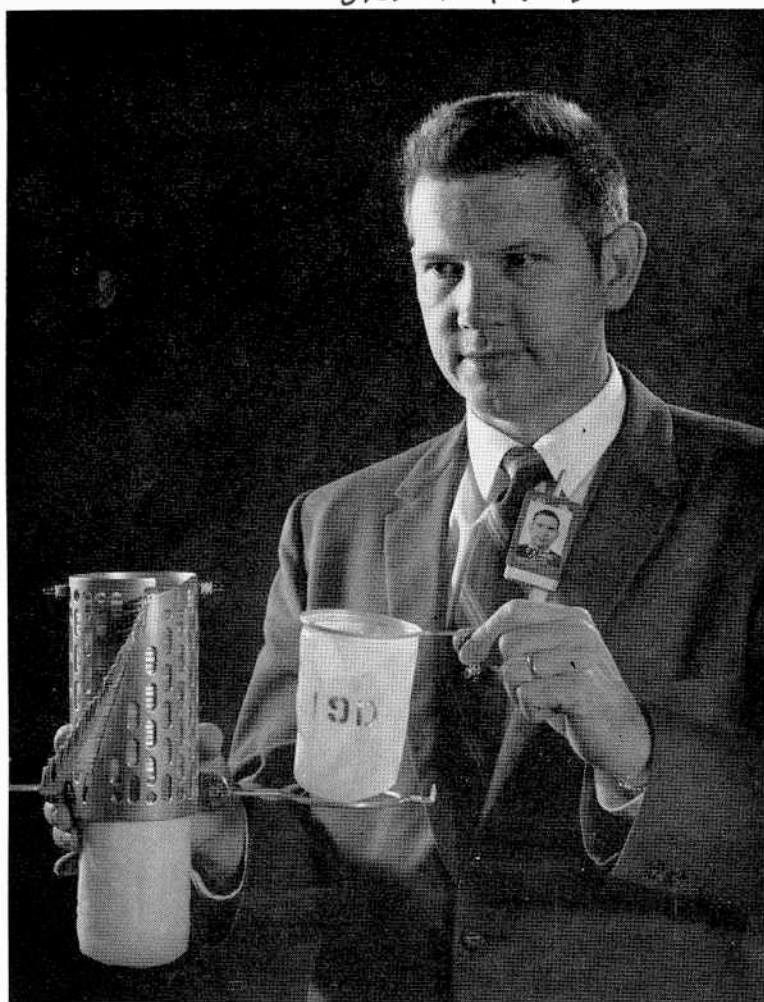
You bet your life when you take a chance.

### TIME OF LIFE

By the time a couple can afford to go out for an evening, they are afraid of leaving the grandchildren by themselves.

### DESIGN FOR LIVING

'Tis a wise man who forgets yesterday, enjoys today, and holds high hopes for tomorrow.



**CARBIDE DEVELOPS DISPENSER** unit for NASA . . . C. A. Hahs, General Engineering Division, Oak Ridge National Laboratory, demonstrates the operation of a special bag dispenser unit development at Y-12 and ORNL facilities for use by astronauts on the Apollo 12 mission.

## Nuclear Division-Made Plastic Bags On Way To Moon In Apollo XII Flight

Union Carbide's Nuclear Division has developed special bags and a dispenser unit to be used by astronauts in securing lunar samples on the Apollo 12 mission.

This time the lunar module commander and pilot will be on the moon approximately 6 hours to set up several new experiments and collect samples for return to the Lunar Receiving Laboratory, Houston, Tex. The astronauts will work together to select, collect, and document lunar soil and rock samples in a manner similar to geological field trips on earth.

The Oak Ridge dispenser unit consists of 35 individually numbered cast-film Teflon bags and a container-dispenser—actually a hollow cylinder housing the bags, with two "side supports" to hold the bags while being filled. On the moon, the unit will be mounted on a tool carrier designed by the National Aeronautics and Space Administration.

The astronauts will remove each bag from the dispenser by grasping the bag's aluminum tab handle which protrudes from the side of the dispenser. After placing the bags in the "side supports," the astronauts will fill them, leaving enough space for sealing by rolling the plastic like a tobacco pouch. The bags will then be stored in Sample Return Containers—the "moon rock boxes"—for the trip back to earth.

The moon rock boxes, also designed and fabricated by the Nuclear Division, are like those first used during Apollo 11.

The bags and dispenser, which were assembled in an ultra-clean room, are designed to operate under the moon's vacuum conditions and at temperatures ranging from -40 to +250° F. The bags measure about 5 inches deep and about 3-1/4 inches in diameter when open. The assembled dispenser—made of aluminum, Teflon and stainless steel—stands about 10-1/2 inches high, has a diameter of 4 inches, and weighs

about 1-1/2 pounds.

The dispenser unit was designed for NASA by the General Engineering Division of Oak Ridge National Laboratory under the direction of the project office in the Oak Ridge Y-12 Plant. The rock boxes were designed and fabricated at Y-12.

For Apollo 12, the Y-12 Plant has also "super-cleaned" four moon rock boxes and various tools. Two rock boxes will be aboard the Lunar Module, and two are available for back-up.

The cleaning operation was performed in a super-clean room facility equipped with absolute filters and an airflow system that permits some 386 air changes per hour. The equipment was cleaned by immersing it in a series of vats equipped with ultrasonic vibrators. The combination of ultrasonic energy and high-purity solvents removed tiny, hard-to-reach dirt particles and organic contaminants that might interfere with an accurate appraisal of moon samples.

The rock boxes were cleaned to less than 10-billionths of a gram of matter per square centimeter of surface—equivalent to the amount of material found in a few fingerprints on an area the size of a football field.

After being hermetically packaged, the rock boxes were sent to the Lunar Receiving Laboratory for final flight preparation.

The Apollo 12 work at both ORNL and Y-12 was done under an interagency agreement between NASA and the U.S. Atomic Energy Commission.



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**Y-12 CONSULTING ENGINEER** J. C. Little proudly points to the 'P. E.' emblem by his nameplate on the office door. The emblem indicates that he is duly licensed as a professional engineer.

132271



**E. E. CHOAT** displays the Engineers Creed and professional engineer's license with his academic degrees. The 'P. E.' emblem is affixed to his desk nameplate.

## Professional Engineer – Proud Title

Continued from Page 1

Further explanation is provided by T. E. Douglass, Technical Division. "The National Society of Professional Engineers recognizes that one of the great needs of the profession is to distinguish the qualified professional engineer from those involved in the many other essential activities associated with engineering."

The registration of engineers is regulated by laws of the individual states.

To obtain his license in Tennessee, an engineer must meet the following requirements: (1) he must make application to the Tennessee State Board of Architectural and Engineers' Examiners; (2) he must be recommended by three registered engineers as having acceptable professional competence and moral standards; (3) he must pass a written two-day test to demonstrate competence or provide other evidence acceptable to the Board; (4) he must appear before the Board for personal interview.

To assist persons planning to take the examination, Y-12 sponsors a review course.

In addition to the program to license Y-12 engineers, an effort is under way to encourage engineering technicians to become certified.

The requirements for certification of engineering technicians are as follows:

(1) The technician must make application and be approved by the Institute for the Certification of Engineering Technicians; (2) he must be recommended as meeting requirements for certification and as having acceptable personal qualifications by one or more registered professional engineers; (3) he must have graduated from an accredited program in engineering technology or have at least two years of experience as an engineering technician under the direction of a professional engineer or equivalent.

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